WHAT IS CLAIMED IS:

1. A method for determining which of a plurality of programs has been selected to be received by a monitored receiver, wherein each of the programs has an audio signal portion and is transmitted as a sequence of data packets in a corresponding channel, and wherein the monitored receiver has a receiver audio output representative of an audio signal portion of the selected program, the method comprising the following:

a) comparing the receiver audio output with the audio signal portion of each of the programs until a match is found;

b) reading an identifying code from one of the data packets associated with the matching program; and,

c) storing the identifying code as a time-stamped record in a memory apparatus.

2. The method of claim 1 wherein the receiver audio output comprises an audible acoustic signal, and wherein a) comprises the following:

a1) acquiring, by way of a non-invasive sensor disposed adjacent the monitored receiver, the receiver audio output from the audible acoustic signal; and,

a2) comparing the acquired receiver audio output with respective audio signal portions of each of the programs until a match is found.

3. The method of claim 1 wherein a) comprises scanning the audio signal portions based on historical tuning of the monitored receiver.

4. The method of claim 1 wherein a) comprises scanning the audio signal portions based on a list of favorite stations or channels or programs.

5. The method of claim 1 wherein a) comprises scanning the audio signal portions based on intercepted remote control signals.

6. The method of claim 1 wherein a) comprises scanning the audio signal portions based forecasts of the likelihood of tuning choices.

7. The method of claim 1 wherein b) comprises the following:

b1) demulitplexing a time-division multiplexed sequence of data packets in order to generate a transport bitstream associated with the program matching the receiver audio output; and,

b2) reading the identifying code from the transport bitstream.

8. The method of claim 1 wherein a) comprises the following:

a1) selecting a channel or source;

a2) digitizing the receiver audio output;

a3) applying a first transform to the digitized receiver audio output in order to obtain a receiver audio output spectrum;

a4) applying a second transform to the audio signal portion of one of the plurality of the programs in

the selected channel or source in order to generate a corresponding audio signal portion spectrum;

a5) comparing the receiver audio output spectrum and the audio signal portion spectrum to thereby generate a single aggregate matching score;

a6) if the score exceeds a predetermined value, deciding that the match has been found; and,

a7) if the score does not exceed the predetermined value, selecting a different one of the plurality of programs and repeating a4) through a7), as necessary.

9. The method of claim 8 wherein a) further comprises returning to a1) if a6) and a7) do not result in a match.

10. The method of claim 8 wherein the first and second transforms are the same transforms.

11. The method of claim 10 wherein each of the first and second transforms is a Modified Discrete Cosine Transform.

12. The method of claim 10 wherein each of the first and second transforms is a Fast Fourier Transform.

13. The method of claim 8 wherein a5) comprises comparing the receiver audio output spectrum and the audio signal portion spectrum at each of a plurality of frequencies.

14. The method of claim 8 wherein at least one of the first and second transforms is derived from less than 400 ms of a corresponding signal.

15. The method of claim 1 wherein a) comprises the following:

a1) digitizing at least a portion of the receiver audio output; and,

a2) extracting a feature set from the digitized portion, wherein the digitized portion is at least as long as is needed for the feature set plus a delay introduced by the monitored receiver.

16. The method of claim 1 wherein a) comprises comparing the receiver audio output with the audio signal portion to produce a same output when the receiver audio output and the audio signal portion match, a difference output when the receiver audio output and the audio signal portion do not match, a noise output when at least one of the receiver audio output and the audio signal portion is noisy, and a silent output when at least one of the receiver audio output and the audio signal portion is silent.

17. The method of claim 16 wherein a) comprises counting silent and noisy blocks of at least one of the receiver audio output and the audio signal portion.

18. The method of claim 16 wherein a) comprises transitioning between search, verification, wait-to-see, and audio-off states.

19. The method of claim 1 wherein a) comprises comparing weighted slopes of the receiver audio output with weighted slopes of the audio signal portion.

20. The method of claim 1 wherein a) comprises transitioning between search, verification, wait-to-see, and audio-off states.

21. An apparatus for identifying a program selected for reception on a monitored receiver having an audio output, wherein the selected program comprises one of a plurality of receivable programs, wherein each of the plurality of receivable programs is distributed as a time-division sequence of data packets at a corresponding one of a plurality of radio frequencies, the apparatus comprising:

a tuner and demodulator arranged to receive a predetermined one of the receivable programs;

a first feature extractor arranged to extract a first set of characteristic features from the audio output;

a second feature extractor arranged to extract a second set of characteristic features from the predetermined program;

a comparator arranged to compare the first and the second sets of characteristic features and to determine if the first and the second sets of characteristic features match;

a code extractor arranged to extract a program identifying code from the predetermined program.

22. The apparatus of claim 21 wherein the comparator comprises a microprocessor.

23. The apparatus of claim 21 further comprising a microphone disposed adjacent the monitored receiver, wherein the microphone is arranged to acquire the audio output of the monitored receiver.

24. The apparatus of claim 21 further comprising a coupling to an audio output connector of the monitored receiver, wherein the coupling is arranged to acquire the audio output of the monitored receiver.

25. The apparatus of claim 21 wherein the tuner and demodulator includes a scanning tuner arranged to scan through the plurality of programs and to provided the scanned programs to the second feature extractor.

26. The apparatus of claim 25 wherein the scanning tuner is arranged to scan through the plurality of programs based on historical tuning of the monitored receiver.

27. The apparatus of claim 25 wherein the scanning tuner is arranged to scan through the plurality of programs based on a list of favorite stations or channels or programs.

28. The apparatus of claim 25 wherein the scanning tuner is arranged to scan through the plurality of programs based on an intercepted remote control signal.

29. The apparatus of claim 25 wherein the scanning tuner is arranged to scan through the plurality of programs based on forecasts of the likelihood of tuning choices.

30. The apparatus of claim 21 wherein the second feature extractor is arranged to demultiplex a time-division multiplexed sequence of data packets in order to generate a transport bitstream associated with the program matching the receiver audio output, and wherein code extractor is arranged to extract a program identifying code from the transport bitstream.

31. The apparatus of claim 21 wherein:

the first feature extractor is arranged to digitize the audio output and to apply a first transform to the digitized audio output in order to obtain a receiver audio output spectrum;

the second feature extractor is arranged to apply a second transform to audio signal portions of each of the programs in order to generate a program spectrum;

the comparator is arranged to compare the receiver audio output spectrum and the program spectrum to thereby generate a single aggregate matching score;

if the score exceeds a predetermined value, the comparator is arranged to decide that the match has been found; and,

if the score does not exceed the predetermined value, the comparator is arranged to select a different one of the programs and to repeat the comparison of the receiver audio output spectrum and the program spectrum, as necessary.

32. The apparatus of claim 31 wherein the first and second transforms are the same transform.

33. The apparatus of claim 32 wherein each of the first and second transforms is a Modified Discrete Cosine Transform.

34. The apparatus of claim 32 wherein each of the first and second transforms is a Fast Fourier Transform.

35. The apparatus of claim 31 wherein the comparator is arranged to compare the receiver audio output spectrum and the program spectrum at each of a plurality of frequencies.

36. The apparatus of claim 31 wherein at least one of the first and second transforms is derived from less than a predetermined time of a corresponding signal.

37. The apparatus of claim 21 further comprising a memory arranged to store the program identifying code as a time-stamped record.

38. The apparatus of claim 21 wherein the code extractor is arranged to extract the program identifying code only if the first and the second sets of characteristic features match.

39. The apparatus of claim 21 wherein the first feature extractor is arranged to digitize at least a portion of the receiver audio output and to extract a feature set from the digitized portion, wherein the digitized portion is at least as long as is needed for the feature set plus a delay introduced by the monitored receiver.

40. The apparatus of claim 21 wherein the comparator is arranged to compare the first and second sets of characteristic features so as to produce a same output when the first and second sets of characteristic features match, a difference output when the first and second sets of characteristic features do not match, a noise output when at least one of the first and second sets of characteristic features is noisy, and a silent output when at least one of the first and second sets of characteristic features is silent.

41. The apparatus of claim 40 wherein the comparator comprises silent and noisy blocks counters for at least one of the first and second sets of characteristic features.

42. The apparatus of claim 40 wherein the comparator transitions between search, verification, wait-to-see, and audio-off states.

43. The apparatus of claim 21 wherein the comparator compares weighted slopes of the first and second sets of characteristic features.

44. The apparatus of claim 21 wherein the comparator transitions between search, verification, wait-to-see, and audio-off states.

45. A method for determining which of a plurality of programs has been selected to be received by a monitored receiver, wherein each of the programs is transmitted as a sequence of data packets in a corresponding channel, and wherein the monitored receiver has a receiver output representative of the selected program, the method comprising the following:

a) comparing the receiver output with each of the plurality of programs until a match is found; and,

b) reading an identifying code from one of the data packets associated with the matching program.

46. The method of claim 45 wherein a) comprises the following:

a1) acquiring, by way of a non-invasive sensor disposed adjacent the monitored receiver, the receiver output; and,

a2) comparing the acquired receiver output with each of the plurality of programs until a match is found.

47. The method of claim 45 wherein a) comprises scanning the plurality of programs based on historical tuning of the monitored receiver.

48. The method of claim 45 wherein a) comprises scanning the plurality of programs based on a list of favorite stations or channels or programs.

49. The method of claim 45 wherein a) comprises scanning the plurality of programs based on intercepted remote control signals.

50. The method of claim 45 wherein a) comprises scanning the plurality of programs based on forecasts of the likelihood of tuning choices.

51. The method of claim 45 wherein a) comprises the following:

a1) applying a first transform to the receiver output in order to obtain a receiver output spectrum;

a2) applying a second transform to one of the plurality of the programs in order to generate a corresponding signal portion spectrum;

a3) comparing the receiver output spectrum and the signal portion spectrum to thereby generate a score;

a4) if the score exceeds a predetermined value, deciding that a match has been found; and,

a5) if the score does not exceed the predetermined value, deciding that a match has not been found, selecting a next one of the plurality of programs and repeating at least a2) through a5).

52. The method of claim 51 wherein the first and second transforms are the same transform.

53. The method of claim 52 wherein each of the first and second transforms is Modified Discrete Cosine Transform.

54. The method of claim 52 wherein each of the first and second transforms is a Fast Fourier Transform.

55. A method for determining which of a plurality of programs has been tuned by a monitored receiver, wherein each of the programs is transmitted as a sequence of data packets in a corresponding channel, and wherein the monitored receiver has a receiver output representative of the selected program, the method comprising the following:

a) determining a test power spectrum based upon the receiver output;

b) determining a plurality of reference power spectra based upon the plurality of programs;

c) comparing the test power spectrum with each of the reference power spectra, as necessary, to determine a match; and,

d) determining an identification indicia based upon the match.

56. The method of claim 55 wherein a) comprises applying a first transform to the receiver output in order to obtain the test power spectrum, and wherein b) comprises applying a second transform to the plurality of programs in order to generate the plurality of reference power spectra.

57. The method of claim 56 wherein the first and second transforms are the same transform.

58. The method of claim 57 wherein each of the first and second transforms is a Modified Discrete Cosine Transform.

59. The method of claim 57 wherein each of the first and second transforms is a Fast Fourier Transform.

60. The method of claim 55 wherein the identification indicia is a channel to which the monitored receiver is tuned.

61. The method of claim 55 wherein the identification indicia is a program label associated with a program to which the monitored receiver is tuned.

62. The method of claim 55 wherein the identification indicia is a station associated with a channel to which the monitored receiver is tuned.

63. The method of claim 55 wherein a) comprises determining n test power spectra based upon n sample blocks of the receiver output, wherein b) comprises determining n reference power spectra based upon one of the plurality of programs, wherein c) comprises comparing the n test power spectra with the n reference power spectra to form a single match score, and wherein d) comprises determining an identification indicia based upon the single match score.

64. The method of claim 55 wherein a) comprises determining n + m test power spectra based upon n + m sample blocks of the receiver output, wherein b) comprises determining n reference power spectra based upon one of the plurality of programs, wherein c) comprises comparing the n + m test power spectra with the n reference power spectra to form a single match score, and wherein d) comprises determining an identification indicia based upon the single match score.